

A vertical collage of images representing various aspects of sustainable development. The images are arranged in a vertical strip with diagonal borders. From top to bottom, the images include: a wind turbine in a green field; a butterfly on a pink flower; a large power line tower; a nuclear power plant dome; a sunset scene with silhouettes of people on a bridge; a digital interface with a battery icon; a row of solar panels; a worker on a power line; a night scene of an industrial facility with tall chimneys; a woman using a tablet; and a row of potted plants.



# 2022 TECHNOLOGY TRANSFER AWARDS

These awards recognize the leaders and the innovators who have applied EPRI research to produce significant results.

The award winners have shown exceptional application of EPRI research and technology in solving a problem of size and significance, championing a technology both within their companies and across the industry, driving progress in the electricity sector, and providing meaningful benefits for their companies' stakeholders and for society.

The EPRI Technology Transfer Awards spotlight the value of collaborative research to the electricity sector and its customers. EPRI recognizes and applauds the hard work, commitment, and leadership demonstrated by these award winners to help make electricity more reliable, efficient, affordable, safe, and environmentally responsible.



## ALLIANT ENERGY

- 🔧 Climate-Related Transition and Physical Risk Assessment and Scenario Analysis  
*Joseph Hoch, Michele Pluta*

## AMEREN

- 🔧 Business Capability Model Development for IT-OT Investment Alignment  
*Deepak Suresh*
- 🔧 Davit Arm Vibration Tool  
*John Falkenrath*
- 🔧 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Tyler Friedel, JuliAnn Gerhardt*
- ⚙️ Teams Pioneer Use of EPRI's Leveraging Risk Insights for Aging Management Program Implementation, Realizing Greater Safety & Lower Costs  
*Andrew Burgess, Justin W. Hiller*
- ⚙️ Utilities' Training Efforts Streamlined with Common Industry Training Programs from EPRI  
*Gregory A. Matherly, Tim Neterer, Todd Stewart*

## AMERICAN ELECTRIC POWER

- 🔧 Davit Arm Vibration Tool  
*Meihaun Fulk*
- 🔧 GIC Modeling and Analysis  
*Aster Amahatsion*

## ARIZONA PUBLIC SERVICE

- 🔧 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Randon L. Allen, Martin Solis*
- 🔧 Recloser Testing and Failure Analysis to Inform Deployment Decisions  
*Jeffrey Esser*
- ⚙️ Utilities' Training Efforts Streamlined with Common Industry Training Programs from EPRI  
*Lee E. Baker Sr., Bert Engstrom*

## AVANGRID

- 🔧 Recloser Testing and Failure Analysis to Inform Deployment Decisions  
*Andrew J. Kasznay III*

## CALIFORNIA ISO

- 🔧 Operational Probabilistic Tools for Solar Uncertainty  
*Amber Motley, Rebecca Webb*

## CELSIA

- 🔧 Microgrid Viability Analysis  
*Fabian Diaz, Walter Giraldo Gonzalez, Gabriel Salazar*

## CENTERPOINT ENERGY

- 🔧 IBR and DER Requirements Assessment to Support Bulk System Reliability  
*Maria Paloma De Arizon*

## CHEVRON USA, INC.

- ⚙️ Gas Turbine Digital Twins Creation  
*Andrew Gerling, Joseph Milton, Rick Tomlinson, Rachel Whitacre*

## CHINA NATIONAL NUCLEAR POWER COMPANY, LTD.

- ⚙️ Application of EPRI's Single Point Vulnerability Process Guide Results in Safer Unit Operation and Substantial Reduced Scram Rate  
*Chang Zhengke, Mingze Ma, Wang Guohua, Wang Xin, Wei Zhigang, Zhang Fuhai*

## CNNC SANMEN

- ⚙️ Application of EPRI's Continuous On-Line Monitoring Guidance Results in Improved Maintenance Strategies for 3 EPRI Members  
*Lu Zhiyong, Ma Shihong, Yu Jianming*

⚙️ GENERATION

⚙️ NUCLEAR

🔧 POWER DELIVERY & UTILIZATION



## CONSOLIDATED EDISON COMPANY

- 🔧 **Business Capability Model Development for IT-OT Investment Alignment**  
*Oleg Tosic*
- 🔧 **Davit Arm Vibration Tool**  
*Robert Shuman*
- 🌿 **Environmental Impacts and Mitigation Options for Alternatives to Mineral Oil in Transformers – Assessment of Midel 7131 Synthetic Fluid**  
*David Isaacs, Prakash Kothari, Amjad Merchant, Sergio Sagareli, Frederick Schuepfer, Brian Werner*

## CONSTELLATION

- 🌿 **Teams Pioneer Use of EPRI's Leveraging Risk Insights for Aging Management Program Implementation, Realizing Greater Safety & Lower Costs**  
*Nina Lacome, Seth Rios, Deven Strabala, Barry Thurston*

## CONSUMERS ENERGY

- 🔧 **Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)**  
*Rick Blumenstock, Kyle Desser, Brent Eisenmann, Cory Hamlin, Bradley Johnson, Nate Noffsinger, David Waithaka*

## DOMINION ENERGY

- 🔧 **GIC Modeling and Analysis**  
*Brian Ulmer (South Carolina), Katelynn Vance (Virginia)*
- 🔧 **Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)**  
*Erika Floyd, Paul Ireland, Brian Loftis, Rick Siepka*
- 🔧 **Recloser Testing and Failure Analysis to Inform Deployment Decisions**  
*Dan T. Busilan*
- 🌿 **Utilities' Training Efforts Streamlined with Common Industry Training Programs from EPRI**  
*Bill Moore*

## DTE ENERGY

- 🌿 **Leverage Advanced Random Forest Algorithms for Power Plant Systems**  
*Tony Bazzi*
- 🔧 **Microgrid Viability Analysis**  
*John O'Donnell*
- 🌿 **New GE 7EA Hot Gas Path (HGP) Outage Guide Utilization**  
*Matthew Lemerond, Melinda Stephens*

## DUKE ENERGY

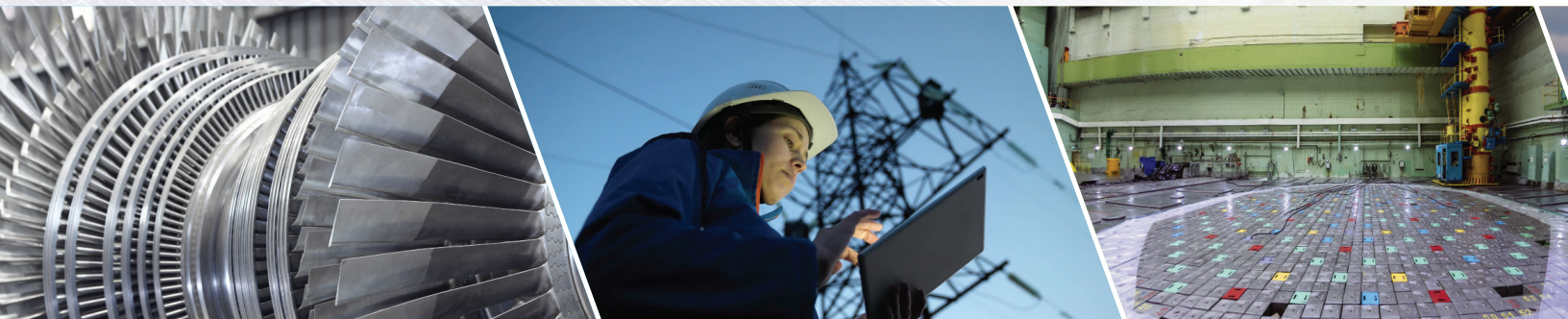
- 🌿 **EPRI Guidance Helps Save Time and Resources for Self-Assessments of In-Service Testing (IST) and Air Operated Valve (AOV) Programs**  
*Rhoel M. Tierra*
- 🔧 **Microgrid Viability Analysis**  
*Tom Fenimore*
- 🔧 **Model-Based Analysis of DER Functions and Settings**  
*Nancy Connelly, Trent Miller, Anthony Williams*
- 🔧 **Operational Probabilistic Tools for Solar Uncertainty**  
*Nick Keener, Stanton Lanham, Rhett Trease*
- 🌿 **Risk-Informed Cyber Security Program Methodology Optimization**  
*Michael Brown, Michael Drummond, Elizabeth Holland, Chifundo Elliott Kanchewere, Sally E. Varner*
- 🌿 **Utilities' Training Efforts Streamlined with Common Industry Training Programs from EPRI**  
*Chris Hynes, Joe W. Smith*
- 🌿 **Wind Turbine O&M Forecasting Using Advanced Reliability Mixture Methods**  
*James K. Bezner, Kurt Brischke, Justin Hatcher*

## ELECTRICITÉ DE FRANCE

- 🌿 **EPRI's Boron-Induced Offset Anomaly (BOA) Risk Assessment Tool Aids in 2 Major Events**  
*E. Le Coupanec*

## ENERGY NORTHWEST

- 🌿 **Collaborative Work on an Effective Modernization Strategy Brings Success at 2 Nuclear Plants**  
*Carl E. Golightly*



## ENTERGY

- 🔌 IBR and DER Requirements Assessment to Support Bulk System Reliability  
*Sharma Kolluri, Maryclaire Peterson*

- 🔌 Model-Based Analysis of DER Functions and Settings  
*Jason Otwell, Chiyang Zhong*

## ERCOT

- 🔌 IBR and DER Requirements Assessment to Support Bulk System Reliability  
*Megan Germann Miller, John Schmall*

## EXELON

- 🔌 Business Capability Model Development for IT-OT Investment Alignment  
*Rich Rosenstiel, James Walters*
- 🔌 Model-Based Analysis of DER Functions and Settings  
*Luke Hasemeier (Baltimore Gas & Electric), Evan Hebert (PECO), Scott Placide (PHI), Luan Watson (PHI), Vincent Westfallen (ComEd),*
- 🔌 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Eric Henlon*
- 🔌 Recloser Testing and Failure Analysis to Inform Deployment Decisions  
*Jim Yeatman (PECO)*
- 🔌 Unmanned Aircraft Systems for Storm Response  
*David Milowicki (PECO), Jason Smith (PECO)*

## FIRSTENERGY

- 🔌 Model-Based Analysis of DER Functions and Settings  
*Shan Sun, James Tobia*
- 🔌 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Linda Maust Jacobs, Gregory MacMaster, Shan Sun*

## FORO ANAY

- 🔌 Application of EPRI's Continuous On-Line Monitoring Guidance Results in Improved Maintenance Strategies for 3 EPRI Members  
*Jose Maria Bueno, Isabel Mach Cestero, Ferran Tarrasa*

## GREAT RIVER ENERGY

- 🔌 New GE 7EA Hot Gas Path (HGP) Outage Guide Utilization  
*Mike Herman*

## HAWAIIAN ELECTRIC

- 🔌 Operational Probabilistic Tools for Solar Uncertainty  
*Henry Lee, Troy T. Uyehara*

## HYDRO ONE NETWORKS

- 🔌 Microgrid Viability Analysis  
*Ryan Boudreau*

## KEPCO

- 🔌 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Jintae Cho*

## KNOXVILLE UTILITY BOARD

- 🔌 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Apsana Bhandari, Zack Cole, Bruce Webb*

## KOREA HYDRO & NUCLEAR POWER COMPANY

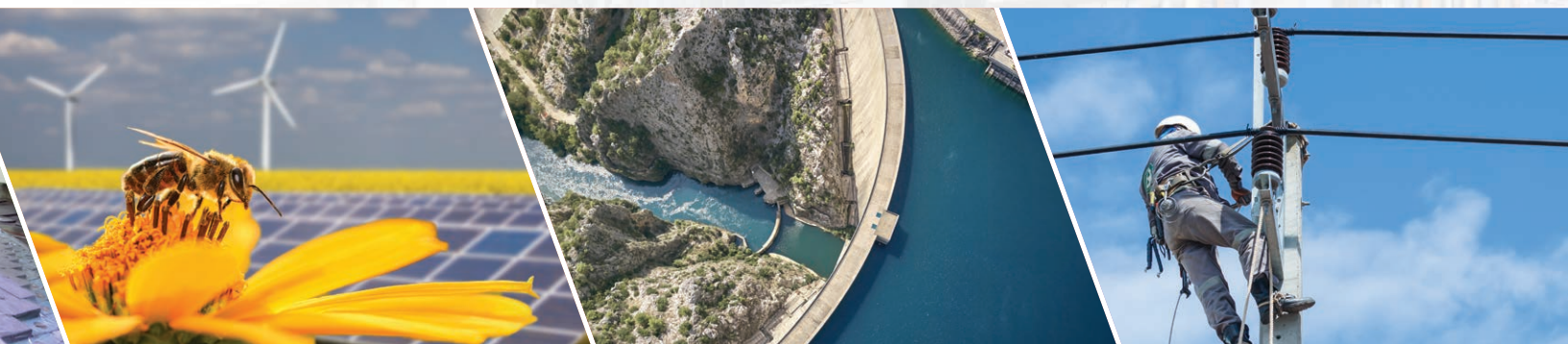
- 🔌 ISI Exam Effectiveness Improved on RVUH Penetration Tubes Using Criteria from EPRI's Pressurized Water Reactor Materials Reliability Program  
*Woogeun Chung, Dongryul Kwak, Jeongseok Lee, Jung-won Lee, Taehun Lee*

## LG&E AND KU ENERGY LLC

- 🔌 Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)  
*Zachary Allen-Kelly, Skyler Martin, Kevin Patterson*
- 🔌 Solar Facility Vegetation Management Through Grazing and Native Solutions  
*Chad Alkire, Samuel Kelty, Nicole Kitko, Aron Patrick*

## MISO

- 🔌 GIC Modeling and Analysis  
*Iknor Singh*



## NATIONAL GRID

- 🔌 Active Resource Integration Project — Flexible Interconnection & DERMS  
*Douglas Ayer, Eli Shakun, Justin Woodard, Brian Yung*
- 🔌 Business Capability Model Development for IT-OT Investment Alignment  
*Jennifer Cooper*
- 🌿 Environmental Impacts and Mitigation Options for Alternatives to Mineral Oil in Transformers — Assessment of Midel 7131 Synthetic Fluid  
*Dr. Gordon Wilson*

## NATIONAL THERMAL POWER CORPORATION

- 🌿 Flexibility in India Through Assessment and Benchmarking  
*Achal Arora, Ramesh Babu, Snehash Banerjee, Subrahmanya Srinivas Chamarty*

## NEBRASKA PUBLIC POWER DISTRICT

- 🔌 Survey and Public Education Campaign to Elicit Customer Preferences to Inform NPPD Decarbonization Goals  
*Conrad Saltzgeber*

## NEW YORK POWER AUTHORITY

- 🔌 Business Capability Model Development for IT-OT Investment Alignment  
*John Palmer*
- 🔌 Davit Arm Vibration Tool  
*Robert Cameron*
- 🌿 Environmental Impacts and Mitigation Options for Alternatives to Mineral Oil in Transformers — Assessment of Midel 7131 Synthetic Fluid  
*Ramadan Elmoudi*
- 🔌 GIC Modeling and Analysis  
*Sean Eagleton, Ali Iravani, Xia Jiang, Iman Kiaei, Joharath Kutty, William McQuillan, Sunil Kumar Palla, Mohammad Rizwan*
- 🌿 Hydrogen and Natural Gas Blending in Power Generation  
*Shawn Agarenzo, Alan Ettlinger, Danny Padron, Michael Sholder, Tim Zandes*
- 🔌 NYPA Water Resources Resiliency Roadmap  
*Cari D. Ficken, Maureen Golan, Kerry-Jane King, John Nolan*

## ONCOR

- 🔌 Davit Arm Vibration Tool  
*Robert Jima*

## ORANGE AND ROCKLAND

- 🔌 Model-Based Analysis of DER Functions and Settings  
*A.J. Anaya, Keith Brideweser*

## PNM RESOURCES

- 🔌 Business Capability Model Development for IT-OT Investment Alignment  
*Mark Lane*

## PSEG NUCLEAR

- 🌿 Collaborative Work on an Effective Modernization Strategy Brings Success at 2 Nuclear Plants  
*Jason Bergeron*

## PUGET SOUND ENERGY

- 🔌 Microgrid Viability Analysis  
*Jo Do*

## SALT RIVER PROJECT

- 🔌 Business Capability Model Development for IT-OT Investment Alignment  
*Shanon Jones*
- 🔌 Model-Based Analysis of DER Functions and Settings  
*Ernest Palomino*

## SAN DIEGO GAS & ELECTRIC

- 🔌 Davit Arm Vibration Tool  
*Stanislav Dekic*

## SEATTLE CITY LIGHT

- 🔌 King County Metro Transit Facility Development  
*Lucie Huang, Del Johnson*
- 🔌 Seattle City Light Electrification Assessment  
*Emeka Anyanwu, Stefanie Johnson, David Logsdon, John Rudolph, Uzma Siddiqi*

## SHANDONG NUCLEAR POWER CO., LTD.

- 🌿 A Complete Single-Sided Scanning Technology Demonstration System for AP1000 Units in China is Developed with Help from EPRI Research  
*Hongfeng Ding, Liu Fei, Yusheng Miao, Hao Wang, Wei Shenghui, Yu Yi*
- 🌿 Significant Savings Realized Through Successful Evaluation of Fuel Failure in AP1000 PWR Using Guidance from EPRI's Fuel Reliability Program  
*Guo Hongen, Wang Shiwei, Wei Guangjun, Wei Shenghui, Shunli Yuan, Zhang Yu*



## SOUTHERN CALIFORNIA EDISON

- 🏆 **Fuel Removal Assessment for Wildfire Mitigation**  
*Joel Boggus, Jonathan J. Contreras, Genevieve Cross, Jessica Doucette*
- 🏆 **Solar, Energy Storage, and Load Management (Demand Flexibility) Research**  
*Mark Martinez, Navniel Pillay*

## SOUTHERN COMPANY

- 🏆 **GIC Modeling and Analysis**  
*Alexander Avery, Harish Sharma*
- 🌟 **Hydrogen and Natural Gas Blending in Power Generation**  
*J. Doug Arnette, LaTisha Fluellen Crumbly, Eric Johnson, Kevin Lofton, Jeff Wilson*
- 🏆 **Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)**  
*John W. Bowen*
- 🏆 **Next Generation OT Cyber Security Visibility**  
*David Hillman, Steven Sanders, Christopher Taylor, Alex Waitkus*
- 🏆 **Operational Probabilistic Tools for Solar Uncertainty**  
*David Ault, Kyle Corley, Will Hobbs, Anita Pressley*

## SOUTHERN NUCLEAR

- 🌟 **Application of EPRI's Continuous On-Line Monitoring Guidance Results in Improved Maintenance Strategies for 3 EPRI Members**  
*Raldy M. Cardona, Kimberly Murphree*

## SOUTHWEST POWER POOL

- 🏆 **IBR and DER Requirements Assessment to Support Bulk System Reliability**  
*Harvey B. Scribner*

## TAIWAN POWER COMPANY

- 🌟 **EPRI Guidance Reveals System Decontamination Unnecessary, Saving Millions and Avoiding Large Amount of Waste Generation**  
*Chen-Tsung Fan, Fei-Kai Perng, Ku-Fu Huang, Kuo-Yuan Chien*

## TENNESSEE VALLEY AUTHORITY

- 🏆 **Fleet Management of Transmission Line Structures**  
*Marty Delashmitt, Joseph R. Turk*
- 🏆 **GIC Modeling and Analysis**  
*Ashley Commander, Ian Grant, Jeff Powell*
- 🏆 **Modernize Distribution Planning Using Automated Processes and Tools Automated Distribution Assessment & Planning Tools (ADAPT)**  
*Gary Brinkworth*
- 🌟 **New GE 7EA Hot Gas Path (HGP) Outage Guide Utilization**  
*Benjamin Holt, Clinton L. Lafferty*
- 🌟 **Proactive Application of EPRI's ASME Code Reconciliation for Flow-Accelerated Corrosion (FAC) Highlights Substantial Potential Savings**  
*Chris Hunsaker, Michael L. Seiter, David M. Spears*
- 🌟 **Utilities' Training Efforts Streamlined with Common Industry Training Programs from EPRI**  
*Toney Cross, Jason Valtos*

## TERNA

- 🏆 **Fleet Management of Transmission Line Structures**  
*Massimo Marzinotto, Sino Patti*

## TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INC.

- 🌟 **New GE 7EA Hot Gas Path (HGP) Outage Guide Utilization**  
*Christopher Johnson*

## VISTRA CORP.

- 🌟 **Gas Turbine Digital Twins Creation**  
*Helmer Andersen, Matthew Ballew, Chris Jackson*

## XCEL ENERGY

- 🏆 **Model-Based Analysis of DER Functions and Settings**  
*Travis Dorr, Dave Mino, Dean Schiro*

## XM COMPANIA

- 🏆 **IBR and DER Requirements Assessment to Support Bulk System Reliability**  
*Natalia Andrea Barros Barrera, Lina Ramirez, Carlos Mario Correa*



## About EPRI

Founded in 1972, EPRI is the world's preeminent independent, non-profit energy research and development organization, with offices around the world. EPRI's trusted experts collaborate with more than 450 companies in 45 countries, driving innovation to ensure the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe. Together, we are shaping the future of energy.

3002026003

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